REMARKS

The Examiner is thanked for the courteous telephone interview granted Applicants' representative on March 23, 2004. The present Response has been prepared pursuant to comments made by the Examiner during the interview.

The specification has been amended to correct a typographical error noted therein. No new matter has been added to the specification.

Claims 1-28 remain pending in the present application. Claims 1, 7, 10, 14, 20, 23, 27 and 28 have been amended. No claims have been added and no claims have been canceled. Applicants believe the claims currently in the case patentably distinguish over the cited art, and that this application is in condition for allowance. Reconsideration of the rejection is, accordingly, respectfully requested in view of the above amendments and the following comments.

I. Claim Objection

The Examiner has objected to the term "first partition" in claim 1 as being unclear. By the present Amendment, claim 1, and several other claims have been amended to avoid use of the objectionable terminology and to generally recite the claims in a clearer manner. The claims are now believed to be clear and definite throughout, and withdrawal of the objection is respectfully requested.

II. 35 U.S.C. § 102, Anticipation

The Examiner has rejected claims 1-6, 10-19 and 23-28 under 35 U.S.C. § 102 (b) as being anticipated by Mehta et al. (U.S. Patent No. 6,065,139). This rejection is respectfully traversed.

Mehta et al. (hereinafter Mehta) is directed to a method and system for monitoring computer system operations utilizing a service processor. In Mehta, a computer system is monitored by initiating surveillance of the computer system in system firmware when an architected function occurs in the operating system. The status of computer system operations is monitored based on a frequency of a pulse indicator from the firmware to the system processor.

The present invention is directed to a method and system for service processor surveillance for a system having multiple partitions, and addresses problems that may occur in a multiple partition environment. For example, in a multiple partition environment, each of the multiple partitions try to monitor the status of the service processor, and problems may occur if more than one partition probes the surveillance byte at the same time or if a probe is made by a partition before the service processor has had a chance to respond to a previous probe. In the present invention, a service processor status request is received from one partition of a plurality of partitions; and, after a surveillance test is performed for the service processor, an official response for the surveillance test is updated and a status for the service processor is returned to the partition. In this way, each partition is able to maintain its own record of the status of the service processor.

In rejecting the claims, the Examiner states as follows:

As per claim 1:

Mehta explicitly teaches:

- A method for service processor surveillance [fig. 1, abstract, col. 1, lines 23-25] comprising:
- receiving a service processor status request from a first partition [fig. 1, col. 2, lines 8-10];
- performing a surveillance test for the service processor if the time period has elapsed [fig. 1, col. 2, lines 10-13 and col. 5, lines 8-12];
- updating an official response for the surveillance test [col. 2, lines 25-28 and col. 4, lines 16-18];
- returning a status for the service processor to the partition [col. 2, lines 16-17 and col. 4, lines 9-10].

Office Action dated January 26, 2004, page 3.

Claim 1 of the present application as amended herein recites:

1. A method for service processor surveillance for a system having multiple partitions, comprising:

receiving a service processor status request from one partition of a plurality of partitions;

determining if a predetermined time period has elapsed;

performing a surveillance test for the service processor if the predetermined time period has elapsed;

updating an official response for the surveillance test; and

returning a status for the service processor to the one partition of the plurality of partitions.

Mehta does not disclose a method for service processor surveillance, as recited in claim 1. Mehta discloses a method for computer system surveillance using a service processor that is described in detail in Col. 3, line 56 to Col. 4, line 18 as follows:

> As shown in **Fig. 3**, the surveillance activity commences with the calling of the architected function by the O/S **14** to the firmware **16** (step **40**). The firmware **16** then determines if a surveillance pulse period/'heartbeat' interval has been reached (step **42**). The surveillance pulse period preferably is a predetermined time period sufficient for allowing suitable system checks to occur, e.g., a one minute time period. If the surveillance period has not been reached, surveillance reporting is not required and operations continue with the running O/S **14** (step **30**). For example, the architected function call may occur at a faster rate than is desired for issuing the surveillance signal. Thus, the firmware **16** waits until the appropriate surveillance pulse period has been reached, the firmware **16** issues a surveillance/'heartbeat' signal to the **SP 22** (step **44**). The 'heartbeat' suitably indicates that the system appears to be operating properly from the firmware **16** perspective, since the operating system **14** is providing the architected function appropriately.
>
> Referring back to Fig. **2**, the process then continues with identification of the status of the system using the **SP 22** (step **46**). Thus, the **SP 22** responds to the 'heartbeat' **0** by returning any discovered errors to the firmware **16**. Preferably, the **SP 22** maintains an independent time base and checks that the "heartbeat" signals appear at the necessary frequency. If the "heartbeat" frequency falls outside the expected rate, the **SP 22** suitably executes a tailorable recovery policy, such as providing notification of the failure to a remote service location and/or automatically restarting the system.

Thus, in Mehta, system firmware issues a surveillance/heartbeat signal to the service processor each time a surveillance pulse period is reached. The heartbeat indicates that the computer system appears to be operating properly from a firmware perspective. The service processor then responds to the heartbeat by returning any undiscovered errors to the firmware. If the heartbeat is not properly received by the service processor, a recovery policy is initiated.

In rejecting claim 1, the Examiner refers to col. 2, lines 8-10 of Mehta as disclosing the step of receiving a service processor status request from a first partition. The reference, however, only states that the operating system includes a facility to make periodic calls to a hardware platform of the computer system to sample for events. This is not a disclosure of receiving a service processor status request from a partition. Mehta contains no disclosure of receiving a service processor status request.

The Examiner refers to Col. 2, lines 25-28 and col. 4, lines 16-18 as disclosing the step of updating an official response for the surveillance test after a surveillance test is performed for the service processor. Col. 2, lines 22-30 of Mehta states as follows:

> The computer system further includes a firmware mechanism supported by the processing mechanism, the firmware mechanism receiving the architected function call and subsequently issuing a surveillance signal when a surveillance period has been satisfied. In addition, a service processor is coupled to the processing mechanism, the service processor receiving the surveillance signal and responding to the surveillance signal to indicate system malfunctions.

This recitation states only that the service processor responds to a surveillance signal when there is a system malfunction. It does not disclose updating an official response for a surveillance test for a service processor, as recited in claim 1. Similarly, Col. 4, lines 16-18 reproduced above, states only that notification of a system failure may be provided to a remote service location, and is also not a disclosure of updating an official response for a surveillance test.

The Examiner refers to Col. 2, lines 16-17 and Col. 4, lines 9-10 of Mehta as disclosing the step of returning a status for the service processor to the partition. Col. 2, lines 13-17 states:

> Further, the method includes issuing a surveillance signal to the service processor if the surveillance interval is above the predetermined interval, and responding to the surveillance signal by the service processor to indicate system malfunction.

In Col. 4, lines 9 to 10, reproduced above, Mehta states only that the service processor responds to the heartbeat by returning any discovered errors to the firmware.

These recitations are not a disclosure that the service processor in Mehta returns the status for the service processor to a partition. As indicated above, there appears to be no disclosure in Mehta regarding receiving a service processor status request, and there is also no disclosure regarding returning a status for the service processor to a partition.

For at least all of the above reasons, claim 1 is not anticipated by Mehta, and withdrawal of the rejection thereunder is respectfully requested.

Claims 2-6 depend from and further restrict claim 1, and are also not anticipated by Mehta, at least by virtue of their dependency.

Independent claims 10, 14, 23, 27 and 28 have been amended in a manner generally similar to claim 1, and those claims, together with claims 11-13 that depend from claim 10, claims 15-19 that depend from claim 14, and claims 24-26 that depend from claim 23, are also not anticipated by Mehta for at least the reasons discussed above.

Therefore, the rejection of claims 1-6, 10-19 and 23-28 under 35 U.S.C. § 102 (b) has been overcome.

Claims 1-6, 10-19 and 23-28 would also not be obvious in view of Mehta. As described above, Mehta and the present invention are directed to different methods having different objectives. Mehta describes a technique for monitoring computer system operations using a service processor, and the present invention provides a technique by which partitions in a system having multiple partitions maintain a record of the status of a service processor. The disclosure in Mehta would not suggest the present invention to one of ordinary skill in the art.

III. 35 U.S.C. § 103, Obviousness

The Examiner has rejected claims 7-9 and 20-22 under 35 U.S.C. § 103(a) as being unpatentable over Mehta. With respect to those claims, the Examiner concedes that Mehta does not disclose comparing the official response to a partition official response, and setting the partition official response to be equal to the official response. The Examiner contends, however, that it would be obvious to do so in view of teachings in Mehta. This rejection is respectfully traversed.

There is no disclosure in Mehta that would, in any way, suggest modifying the method described therein to include steps of comparing an official response to a partition official response, and of setting the partition official response to be equal to the official response if the comparison shows they are not equal. There also would appear to be no reason to modify the method disclosed in Mehta to include these steps as is proposed by the Examiner, because Mehta does not recognize or address the problems described in the present application that may be encountered in a system having multiple partitions, and that are solved by the present invention. Claims 7-9 and 20-22 should, accordingly, be allowable in their own right as well as by virtue of their dependency.

Therefore, the rejection of claims 7-9 and 20-22 under 35 U.S.C. § 103 has been overcome.

IV. Conclusion

It is respectfully urged that claims 1-28, as presented herein, are patentable over Mehta and that the application is now in condition for allowance. It is, accordingly, respectfully requested that the Examiner so find, and issue a Notice of Allowance in due course.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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